ABSTRACT OF DISCLOSURE

A mobile computer system such as mobile PC operable between a normal, stationary mode and a Navigation mode for optimal system performance and power management for mobile applications. The mobile PC comprises a disk drive; a host processor equipped with an operating system (OS) which enables operation in a normal mode when the computer system is stationary and a Navigation mode when the computer system is mobile; a vibration sensor arranged to detect whether there is a presence of sustained or sporadic mechanical vibrations over a designated time duration, and to generate therefrom a vibration signal indicating the presence of sustained or sporadic mechanical vibrations; a position sensor arranged to detect whether there is a change in the position of the computer system at a fixed or variable velocity or acceleration, and to generate a position signal indicating the change in the position of the computer system; and a chipset equipped with a disk drive control logic arranged to control disk accesses to the disk drive, including controlling disk accesses to the disk drive in order to reduce damages to the disk drive in response to the vibration signal indicating the presence of sustained or sporadic mechanical vibrations or the position signal indicating the change in the position of the computer system.